

Abstract

Causality-based memory ordering in a multiprocessing environment. A disclosed
5 embodiment includes a plurality of processors and arbitration logic coupled to the plurality
of processors. The processors and arbitration logic maintain processor consistency yet
allow stores generated in a first order by any two or more of the processors to be observed
consistent with a different order of stores by at least one of the other processors. Causality
monitoring logic coupled to the arbitration logic monitors any causal relationships with
10 respect to observed stores.